

Applicants also have amended claims 1, 2, and 9-12 to correct clerical errors. No new matter has been added. These amendments correct the specification and the claims thereby placing the application in condition for allowance.

REMARKS

In the Office Action dated April 16, 2003, claims 1-21 were considered and the Examiner entered rejections to claims 1, 9-11, and 19 and objected to claims 2-8, 12-18, 20, and 21.

Claims 1, 9-11, and 19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,427,082 issued to Nordstrom et al. ("Nordstrom"). Applicants thank the Examiner for indicating that claims 2-8, 12-18, 20, and 21 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-21 are currently pending and presented for reconsideration. In view of the above amendments and following remarks, reconsideration and withdrawal of all grounds of rejection are respectfully requested.

1. Claims 1, 9-11, and 19 are rejected under 35 U.S.C. § 102(e) as being anticipated by Nordstrom. Applicants respectfully traverse this rejection in view of the following remarks.

Applicants respectfully submit that Nordstrom does not describe normalizing an optical spectrum by application of non-uniform segment normalization. The Office Action states at page 3, lines 6-10, that "Nordstrom et al. discloses all the claimed features of the invention including: . . . normalizing said optical spectrum by application of non-uniform segment normalization (column 7, lines 6-22)." Applicants respectfully submit Nordstrom does not describe non-uniform segment normalization at column 7, lines 6-22. Rather, Nordstrom

describes normalizing the spectrum by the total area under the fluorescence spectrum from 390 nm to 620 nm.

Accordingly, Applicants respectfully submit that independent claims 1 and 11 are allowable over Nordstrom. Because claims 9 and 10 depend directly from independent claim 1 and claim 19 depends directly from claim 11 Applicants respectfully submit these claims are allowable as well.

2. Claims 2-8, 12-18, 20, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants appreciate the Examiner's indication of the allowability of claims 2-8, 12-18, 20, and 21; however, in view of the above remarks supporting the patentability of claims 1, 9-11, and 19, Applicants have elected not to rewrite these claims in independent form.

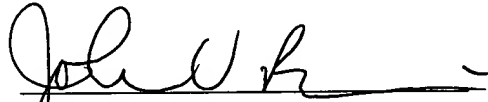
CONCLUSION

In view of the foregoing, Applicants respectfully submit that all claims are now allowable and respectfully request allowance of claims 1-21 in due course. The Examiner is respectfully requested to telephone the undersigned at (617) 248-7870 to discuss any further issues in this matter.

Respectfully submitted,

Date: July 16, 2003

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Attachment A
AMENDED SPECIFICATION IN MARK-UP FORMAT

On page 1, first paragraph, beginning on line 1 and ending on line 7.

This application is related to the U.S. patent application entitled, "Spectral Data Classification of Samples" and identified by [Attorney Docket Number MDS-021] U.S. Serial No. 09/738,481 (now U.S. Patent No. 6,421,553), filed on even date herewith (December 15, 2000), and the U.S. patent application entitled, "A Spectroscopic System Employing A Plurality of Data Types" and identified by [Attorney Docket Number MDS-022] U.S. Serial No. 09/738,613 (now U.S. Patent No. 6,385,484), filed on even date herewith (December 15, 2000). All of the above applications are assigned to the common assignee of this application, and are hereby incorporated by reference.

On page 13, lines 19-20, the sentence beginning on line 19 and ending on line 20.

However, the segments may have uniform width, be contiguous and/or be evenly separated in wavelength space.[.]

Attachment C
MARKED-UP COPY OF AMENDMENTS TO THE CLAIMS

1. (Amended) A method of performing spectral analysis, said method comprising[,]:
obtaining an optical spectrum, and
normalizing said optical spectrum by application of non-uniform segment normalization.
2. (Amended) The method of claim 1, wherein said normalizing further comprises[,]:
selecting one or more segments from said optical spectrum, each of said segments being
bounded by an upper wavelength and a lower wavelength and containing one or more
wavelengths, each of said wavelengths having an associated amplitude,
determining an area under a curve associated with each particular segment, wherein each
said curve is bounded along a first axis by said upper wavelength and said lower wavelength of
said particular segment, and along a second axis by said amplitudes associated with each of said
wavelengths included in said particular segment,
summing said areas for each of said segments to determine a normalization factor, and
dividing at least one said associated amplitude for one of said wavelengths included in
said segments by said normalization factor.
3. The method of claim 2, wherein a first segment differs in size of wavelength range
from that of a second segment, wherein said size of wavelength range is defined as the absolute
magnitude of a difference between said upper wavelength and said lower wavelength.
4. The method of claim 2, wherein a first segment is equal in wavelength range to a
second segment, wherein said size of wavelength range is defined as the absolute magnitude of a
difference between said upper wavelength and said lower wavelength.

5. The method of claim 2, wherein said one or more segments comprises at least first and second non-contiguous segments.

6. The method of claim 2, wherein said one or more segments comprises at least first, second and third segments, and there exists a first span between an upper wavelength of said first segment and a lower wavelength of said second segment, and a second span between an upper wavelength of said second segment and a lower wavelength of said third segment.

7. The method of claim 6, wherein said first and said second spans differ in magnitude.

8. The method of claim 6, wherein said first and said second spans are substantially equal in magnitude.

9. (Amended) The method of claim 1 further comprising[,] obtaining said spectrum from a specimen of human cervical tissue.

10. (Amended) The method of claim 1 further comprising[,] determining a disease status of said test specimen by analyzing said optical spectrum subsequent to said normalizing.

11. (Amended) A system for performing spectral analysis comprising[,]:
a spectrographic device, adapted to obtain an optical spectrum from a test specimen, and
a processor adapted to normalize said optical spectrum by application of non-uniform segment normalization.

12. (Amended) The system of claim 11, further comprising machine readable instructions executing on said processor and adapted to[,]:

select one or more segments from said optical spectrum, each of said segments being bounded by an upper wavelength and a lower wavelength, and containing one or more wavelengths, each of said wavelengths having an associated amplitude,

determine an area under a curve associated with each particular one of said segments, wherein each said curve is bounded along a first axis by said upper wavelength and said lower wavelength of said particular segment, and along a second axis by said amplitudes associated with each of said wavelengths included in said particular segment,

sum said areas for each of said segments to determine a normalization factor, and

divide at least one said associated amplitude for one of said wavelengths included in said segments by said normalization factor.

13. The system of claim 12, wherein said machine readable instructions are further adapted to one of select and enable a user to select a first segment different in size of wavelength range from that of a second segment, wherein said size of wavelength range is defined as the absolute magnitude of a difference between said upper wavelength and said lower wavelength.

14. The system of claim 12, wherein said machine readable instructions are further adapted to one of select and enable a user to select a first segment to be substantially equal in size of wavelength range to that of a second segment, wherein said size of wavelength range is defined as the absolute magnitude of a difference between said upper wavelength and said lower wavelength.

15. The system of claim 12, wherein said machine readable instructions are further adapted to one of select and enable a user to select said one or more segments to include at least first and second non-contiguous segments.

16. The system of claim 12, wherein said machine readable instructions are further adapted to one of select and enable a user to select said one or more segments to include at least first, second and third segments, and there exists a first wavelength span between an upper wavelength of said first segment and a lower wavelength of said second segment, and a second wavelength span between an upper wavelength of said second segment and a lower wavelength of said third segment.

17. The system of claim 16, wherein said first and said second spans differ in magnitude.

18. The system of claim 16, wherein said first and said second spans are substantially equal in magnitude.

19. The system of claim 11, wherein said spectrographic device is further adapted to obtain said optical spectrum from a specimen of human cervical tissue.

20. The system of claim 12, wherein said machine readable instructions are further adapted to extract a test parameter from said optical spectrum.

21. The system of claim 12, wherein said machine readable instructions are further adapted to determine a disease status of said test specimen by analyzing said optical spectrum, subsequent to said normalizing.